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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,749	06/19/2003	Shigeru Sugaya	7217/69506	6001

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EXAMINER	
WONG, BLANCHE	
ART UNIT	**PAPER NUMBER**
2616	

MAIL DATE	DELIVERY MODE
07/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/600,749	SUGAYA, SHIGERU	
	Examiner	Art Unit	
	Blanche Wong	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 April 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2,4-8 and 10-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2,4-8 and 10-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received..

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claim 2 have been considered but are moot in view of the new ground(s) of rejection.

2. The indicated allowability of claims 14 and 17 is withdrawn in view of the newly discovered reference(s) to Odman (Pub No. US2004/0058686 A1). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 6,20,21** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 6, line 4, it is unclear whether "a radio communication apparatus" is the same radio communication apparatus in claim 2.

With regard to claims 20 and 21, it is unclear what is comprising the steps listed.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent

granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claim 2,4-8,10-21** are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Odman (Pub No. US2004/0058686 A1).

With regard to claims 2 and 8, and claims 20 and 21, Odman discloses a radio communication apparatus comprising:

beacon transmitting means **(coordinator 310 in Fig. 3, para. [0010])(see also the beacon period 510 is set aside for the coordinator 310 to send a beacon frame out ..., para. [0056])** for setting a transmission frame period of a local network and transmitting beacon information regarding resource allocation **(sharing of bandwidth) (the coordinator 310 coordinates the sharing of bandwidth, para. [0018]) (see also IEEE standard 802.15.3, para. [0018])** at a predetermined position of the transmission frame period **(beacon period 510 in superframe in Fig. 5)**;

interference detecting means **(coordinator 310 in Fig. 3, para. [0010]) (see also a scan mode to determine the existence of interfering signals ... scan mode performed by the network coordinator 310, para. [0085])** for detecting whether the local network interferes with another network; and

buffer frame period setting means **(coordinator 310 in Fig. 3, para. [0010])** for setting a buffer frame period having a different frame period to change the position of a transmission frame period upon detection of interference between network **(one way to accommodate an interfering signal is to alter the size of the superframes ... period of the superframes ... period of the interfering signals ..., para. [0088])**,

wherein the interference detecting means detects interference of beacon information on the basis of parameters **(period and position)** obtained by receiving beacon information transmitted from another network **(a scan mode to determine the existence of interfering signals, as well as their period and position relative to the superframes, para. [0085])**.

With regard to claims 4 and 10, Odman further discloses

the transmission frame period includes a contention free period **(contention free period 530 in superframe in Fig. 5)** wherein data communication is effected based on range reservation/allocation, and

the interference detecting means detects whether contention free periods are synchronized **(same) (the period of the superframes is the same as the period of the interfering signals, para. [0088])** between networks based on parameters **(period and position)** obtained by receiving beacon information transmitted from another network **(a scan mode to determine the existence of interfering signals, as well as their period and position relative to the superframes, para. [0085])**.

With regard to claims 5 and 11, Odman further discloses

the buffer frame setting means sets a buffer frame period that is shorter **(the period of the interfering singals is an integer multiple of the period of the superframes in Fig. 8C)** than a transmission frame period **(superframe)** so as to ease the interference of contention free periods between networks.

With regard to claims 6 and 12, Odman further discloses

the interference detecting means detects interference between networks based on information from a radio communication apparatus **(non-coordinator devices 320 in Fig. 3, para. [0056])** in the local network.

With regard to claim 7, Odman further discloses

the buffer frame setting means sets a buffer frame period that is shorter **(the period of the interfering singals is an integer multiple of the period of the superframes in Fig. 8C)** than a transmission frame period **(superframe)** so as to ease the interference of contention free periods between networks.

With regard to claim 13, Odman further discloses

the buffer frame setting means sets a buffer frame period that is shorter **(the period of the interfering signals is an integer multiple of the period of the superframes in Fig. 8C)** than a transmission frame period **(superframe)** so as to ease the interference of contention free periods between networks.

With regard to claims 14 and 17, Odman discloses a radio communication apparatus comprising:

beacon information receiving means **(each non-coordinator device knows how to recognize a beacon 510, para. [0056])** for receiving beacon information from a control station **(coordinator 310 in Fig. 3, para. [0010])** of a local network **(network 300) (the beacon period 510 is set aside for the coordinator 310 to send a beacon**

frame out to the non-coordinator devices 320 in the network 300, para. [0056]) in a predetermined beacon information receiving range **(beacon period 510 in superframe in Fig. 5)**;

beacon information detecting means **(coordinator 310 in Fig. 3, para. [0010]) (see also a scan mode to determine the existence of interfering signals ... scan mode performed by the network coordinator 310, para. [0085])** for detecting beacon information from a control station of another network **(interference signals)**;

collision detecting means **(coordinator 310 in Fig. 3, para. [0010]) (see also a scan mode to determine the existence of interfering signals ... scan mode performed by the network coordinator 310, para. [0085])** for detecting whether beacon information of the local network collides with beacon information of another network **(interference signals)**; and

interference informing means **(coordinator 310 in Fig. 3, para. [0010]) (see also a scan mode to determine the existence of interfering signals ... scan mode performed by the network coordinator 310, para. [0085])** for notifying a control station of the local network of a beacon information collision detection result **(result from scan mode)**.

With regard to claims 15 and 18, Odman further discloses

the beacon information detecting means sets a predetermined time for a beacon information receiving range to detect beacon information from a control station of another network **(beacon period 510 in superframe in Fig. 5)**.

With regard to claims 16 and 19, Odman further discloses

the interference informing means for reporting a beacon information collision detection result by using a management time slot **(designate a time slot 540, para. [0090]; see also Fig. 8A)** allocated to a control station of the local network.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BW
July 2, 2007

EDAN ORGAD
PRIMARY PATENT EXAMINER
7/9/07